

**Premarket Notification [510(K)] Summary**  
(per 21 CFR 807.92)

SEP 11 2008

**Submitter:** ApaTech Limited  
370 Centennial Avenue  
Elstree, Hertfordshire WD6 3TJ  
United Kingdom

**Contact Person:** James Cassidy, PhD  
508 543 0700 (phone)  
508 543 5551 (fax)

**Date Prepared:** July 14, 2008

**Classification:** Resorbable calcium salt bone void filler devices have been classified by the Orthopedics Device Panel as Class II Special Controls per 21 CFR 888.3045, Product Code MQV.

**Trade Name:** Actifuse™ Flow Bone Graft Substitute

**Common Name:** Bone Void Filler

**Predicate Devices:** Actifuse™ ABX E-Z-fil Putty Bone Graft Substitute, K071206

**Intended use:**

Actifuse™ Flow Bone Graft Substitute is a bone void filler intended only for orthopaedic applications as a filler for gaps and voids that are not intrinsic to the stability of the bony structure. Actifuse™ Flow Bone Graft Substitute can be injected into bony voids or gaps of the skeletal system, i.e., extremities, pelvis, and spine, including use in posterolateral spinal fusion procedures with appropriate stabilizing hardware. These defects may be surgically created osseous defects or osseous defects created from traumatic injury to the bone. The product provides a bone void filler that resorbs and is replaced by bone during the healing process.

**Device Description**

Actifuse™ Flow is phase-pure silicon-substituted calcium phosphate osteoconductive bone void filler, comprising a single-phase calcium phosphate scaffold delivered in a matrix of resorbable polymer. The interconnected and open porous structure inherent of the source material for the mineral phase of Actifuse is similar to human cancellous bone. Actifuse Flow is available as a hydrated putty.

**Technological Characteristics and Substantial Equivalence**

Actifuse Flow is composed of a porous calcium phosphate, equivalent to that contained in both predicate devices and to that in routine clinical use. The technologies employed in Actifuse Flow and its predicate devices are therefore substantially equivalent. Actifuse Flow has the same indications, contraindications, risks and potential adverse events as the predicate devices, and thus substantial equivalence is claimed for the device.

**Testing**

Bench testing has shown Actifuse™ Flow to meet the requirements of all relevant standards for Calcium Salt Bone Void Fillers. Testing has confirmed Actifuse Flow to be safe and effective in providing a scaffold for rapid bone repair via bony infiltration of the porous scaffold.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

SEP 11 2008

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

ApaTech Limited  
% Ms. Candace F. Cederman  
Consultant  
15058 Armel Drive  
Oregon City, Oregon 97045

Re: K082073

Trade/Device Name: Actifuse™ Flow  
Regulation Number: 21 CFR 888.3045  
Regulation Name: Resorbable calcium salt bone void filler device  
Regulatory Class: II  
Product Code: MQV  
Dated: July 22, 2008  
Received: July 23, 2008

Dear Ms. Cederman:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Center for Devices and Radiological Health's (CDRH's) Office of Compliance at (240) 276-0120. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding postmarket surveillance, please contact CDRH's Office of Surveillance and Biometric's (OSB's) Division of Postmarket Surveillance at (240) 276-3474. For questions regarding the reporting of device adverse events (Medical Device Reporting (MDR)), please contact the Division of Surveillance Systems at (240) 276-3464. You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at toll-free number (800) 638-2041 or (240) 276-3150 or the Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Mark N. Melkerson", with a horizontal line extending from the end of the name.

Mark N. Melkerson  
Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

## Statement of Indications for Use

510(k) Number (if known): K082073

Device Name: Actifuse™ Flow

Indications for Use:

Actifuse™ Flow Bone Graft Substitute is a bone void filler intended only for orthopaedic applications as a filler for gaps and voids that are not intrinsic to the stability of the bony structure. Actifuse™ Flow Bone Graft Substitute can be injected into bony voids or gaps of the skeletal system, i.e., extremities, pelvis, and spine, including use in posterolateral spinal fusion procedures with appropriate stabilizing hardware. These defects may be surgically created osseous defects or osseous defects created from traumatic injury to the bone. The product provides a bone void filler that resorbs and is replaced by bone during the healing process.

Prescription Use   X    
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use             
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

(Division Sign-Off)

Division of General, Restorative,  
and Neurological Devices

510(k) Number K082073